

Non-geometric branes are DFT monopoles

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Abstract

© 2016, The Author(s). The double field theory monopole solution by Berman and Rudolph is shown to reproduce non-geometric backgrounds with non-vanishing Q- and R-flux upon an appropriate choice of physical and dual coordinates. The obtained backgrounds depend non-trivially on dual coordinates and have only trivial monodromies. Upon smearing the solutions along the dual coordinates one reproduces the known 522 solution for the Q-brane and co-dimension 1 solution for the R-brane. The T-duality invariant magnetic charge is explicitly calculated for all these backgrounds and is found to be equal to the magnetic charge of (unsmeared) NS5-brane.

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Keywords

Solitons Monopoles and Instantons, String Duality, Supergravity Models